



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

## Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO038327	MEC002-VU	3	1	Net 30	M7075T6S1.250X7.000	7075-T6 Sheet 1.25" X 7.000" Order Pre Cut To 50.00" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft				50	11/28/2017	50		S017118	Stock	12/4/2017	\$ 44.65 / ft	0		\$2,232.50	Metaux Castle
Total:										50		50								\$2,232.50	

Plex 12/4/2017 3:55 PM Dart.Plouffe.Sonia

INTERORG TRANSFER  
PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

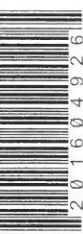
Page 1 of 2

Shipment No:3444698

<b>Ship From:</b> A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA		<b>Sold To:</b> AVESTIN INC 2450 DON REID DRIVE OTTAWA, ON K1H 1E1 CA	<b>Ship To:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	<b>Deliver To:</b> AVESTIN INC 2450 DON REID DRIVE OTTAWA, ON K1H 1E1 CA
<b>Date Shipped</b> 22-NOV-17	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid	<b>Carrier</b> XPO LOGISTICS FREIGHT	<b>BOL No</b> 3444698-2

<b>Shipment Details</b>	<b>Final Destination Branch - TOR</b>
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<b>Order No</b> 1112032989	<b>Line No</b> 6	<b>Item No</b> 8296	<b>Description</b> 6.0000.4.0000.0.5000.ANG.6061.T6.ALUMINUM.EXT.300.0000 SPECIFICATIONS: ALL MATERIAL TO BE MARKED WITH HEAT NUMBERS,NO OUTOKUMPU MATERIAL ALLOWED NORTH AMERICAN MILLS ONLY WILL BE ACCEPTED
<b>Purchase Order No</b> CM415	<b>Part Number</b>	<b>Ordered Qty</b> 1.00 PCS	<b>Invoice Qty</b> 25.0000 FT
<b>Details</b> ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S- MUST BE CLEARLY VISIBLE TO THE EYE MUST HAVE PROPER PACKAGING !!!! NORTH AMERICAN MILLS ONLY WILL BE ACCEPTED NO OUTOKUMPU MATERIAL WILL BE ACCEPTED ATT: ALL DISTRICTS-CLIENT REQUIRES P/SLIPS AND MILL CERTS EMAILED AT : AVESTIN@AVESTIN.COM ATT: TRISH			

<b>Delivery No.</b> 121448734	<b>Mill/Source</b> CENTRAL STEEL & WIRE CO.	<b>Heat Number</b>  201604926	<b>Mech Id</b> 1	<b>PCS</b>	<b>Width (IN)</b>	<b>Length (IN)</b> 300.0000	<b>Shipped Qty(LBS)</b> 139.5000
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INTERORG TRANSFER  
PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 2 of 2

any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.	
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to the U.S. Government within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.	
Reviewed by Authorized Castle Metals Representative:	Date: Name:

*William H. Taylor*  
K-46 K-3

# INTERORG TRANSFER PACKING SLIP/ CERTIFICATE OF CONFORMANCE

Page 1 of 2

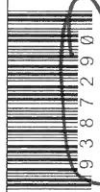
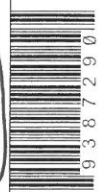
Shipment No:3444698

<b>Ship From:</b> A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 22-NOV-17		<b>F.O.B.</b> ORIGIN		<b>Freight Terms</b> Prepaid		<b>Carrier</b> XPO LOGISTICS FREIGHT	
						<b>BOL No</b> 3444698-2	

## Shipment Details

Order No	Line No	Item No	Description
4952481	1	752114.MO	1.2500.PL.7075.T651.ALUMINUM.USD48.5000.144.5000 CUT 2SIDED TO 7 IN ( + .0620/- .0000 IN) X 50 IN ( + .0620/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS:AMS-QQ-A-250/12
<b>Purchase Order No</b> 38327		<b>Part Number</b>	<b>Ordered Qty</b> 12.00 PCS
			<b>Invoice Qty</b> 12.00 PCS

**Details**  
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY  
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S  
Email P/s and certs to: clavoie@dartaero.com  
END USER: DART AEROSPACE  
END USE: COMMERCIAL AIRCRAFT PARTS

Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121448766	CONSTELLUM ROLLED PRODUCTS			6			271.6998
121448766	CONSTELLUM ROLLED PRODUCTS			6			271.6998

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized.

Date Printed: 22-NOV-2017 01:59:30 PM

INTERORG TRANSFER  
PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 2 of 2

by U.S. law and regulations.		
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to AMM Castile & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.		
Reviewed by Authorized Castile Metals Representative:	Date:	Name:

*Amir Khan*  
K-46

807-124



**Constellium**




**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE & CO.  
14001 ORANGE AVE.  
PARAMOUNT CA  
90723  
US

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A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110550653		4075		INCLUSION		Serial:20170703-0110550653		Pg 1of4	
CUSTOMER PURCHASE ORDER NO. & ITEM 419158						Constellium ORDER NO. 202980					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm		<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA    Steve Good - Laboratory Manager				
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114			B/L NUMBER 83332		DATE SHIPPED 07/05/2017						
WT. SHIPPED 8010.000 LB		NO. OF PIECES 000009		GOVT. CONTRACT NO.							

**ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:**

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A  
 AMS QQ-A-250/12A  
 AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE  
 ASTM B209-14  
 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE  
 CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE  
 DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE  
 GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE  
 PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

**Load Details**

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001556281	890.000	403.697	9387290	01		
1001556281	890.000	403.697	9387290	02		
1001556281	890.000	403.697	9387290	03		
1001556282	890.000	403.697	9387288	01		
1001556282	890.000	403.697	9387288	02		
1001556282	890.000	403.697	9387288	03		
1001556283	890.000	403.697	9387289	01		
1001556283	890.000	403.697	9387289	02		
1001556283	890.000	403.697	9387289	03		

**Lot: 9387290**

**Tensile - Room Temperature (US)**

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	78.6	80.2	69.4	70.1	13.0	13.5	



LCK

# MATERIAL CERTIFICATION

REV DATE: APR 18, 2016

P.O. Box 12100 - Detroit, MI 48212-0100  
1-313-368 5000 1-800-462-1950  
(FAX 1-800-292-3678)

P.O. Box 1154 - Milwaukee, WI 53201-1154  
1-414-481 5000 1-800-521-8031  
(FAX 1-800-292-6459)

*Central Steel & Wire Company*

P.O. Box 5100 - Chicago, IL 60680-5100  
1-773-471-3800 1-800-621-8510  
(FAX 1-773-471-3962)

Cincinnati, OH 45216-2355  
1-800-621-8510  
(FAX 1-800-732-9279)

P.O. Box 22015 - Greensboro, NC 27420-2015  
1-336-332-2332 1-800-621-8510  
(FAX 1-800-232-9279)

SOLD TO: ATTN: DWILLIAMSON  
A M CASTLE & CO  
3050 S HYDRAULIC ST  
WICHITA KS 67216-2405

DATE(ORG): APR 15, 2016  
CSW ORDER: 707980  
CUSTOMER PO: 379697

58375

ITEM 001 6" X 4" X 1/2" ALUM 6061 T6 ANGLE--25 FT

1394#

SOURCE:  
SERVICE CENTER METALS  
SERVICE CENTER METALS

LOT#  
201604926  
201600926

SYM

- MILL CERTS ARE ATTACHED  
- MILL CERTS ARE ATTACHED

03D6R  
02D6R

WE CERTIFY THAT THE ABOVE MATERIALS FURNISHED BY US WILL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OUTLINED.  
Certifications furnished to the buyer by the seller describe the materials and/or services furnished, as indicated in the seller's records.  
Results of mill tests implied in such certifications are based on standard mill practices and do not indicate each piece has been tested.

WE HEREBY CERTIFY THAT THE FOREGOING DATA IS A TRUE  
REPRESENTATION OF THE DATA FURNISHED TO US BY THE PRODUCING MILL

*Ryan Rathbun*

RYAN RATHBUN - MANAGER  
METALLURGY & TEST REPORTS

*Central Steel & Wire Company*





**Service Center Metals**  
5850 Quality Way  
Prince George, VA 23875

**Can Do.**

# CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

Material Sold to Central Steel & Wire: Heat: 201604926 IAC: 60568 PO: CHI64337

OUR ORDER NUMBER	257495
ITEM	3

BILL TO	MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT
Central Steel & Wire Company	288880	SUA0238	3/18/2016
SHIP TO	CUSTOMER PO	ALLOY / TEMPER	SALES PERSON
Central Steel & Wire Company	CHI-64337	6061-T6	David Schroeder
Quantity Certified	976 lbs	7 pcs	DESCRIPTION
			SUA 6.000x4.000x.500

CERTIFICATION	ASTM-B308-10 SPOT STENCIL
SPECIFICATION	ASTM-B221-14
SPECIFICATION	AMS-QQA-200/8 - 1997
SPECIFICATION	CS&W SPEC V-8 12/20/13

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

## Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
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1	201604926	3/17/16	min 43.60 max 43.60	min 40.60 max 40.60	min 17.35 max 17.35
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## Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	II	AL	Others		Melt Source
												Each	Total	
2K160218C	201604926	6061	0.61	0.26	0.18	0.07	0.84	0.07	0.02	0.03	97.92	0.05	0.15	United States of America

SCM extrusions are manufactured in the USA.

*Calvin J. Wiggins*

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 3/18/2016

Rev 92311-UMS







**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE & CO.  
14001 ORANGE AVE.  
PARAMOUNT CA  
90723  
US

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A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110550653		4075		INCLUSION		Serial:20170703-0110550653		Pg 2of4	
CUSTOMER PURCHASE ORDER NO. & ITEM 419158						Constellium ORDER NO. 202980					
ALLOY 7075		CLAD		TEMPER T651		GAUGE 1.25000 in 31.75 mm		WIDTH 48.50000 in 1,232 mm		LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114				B/L NUMBER 83332				DATE SHIPPED 07/05/2017			
WT. SHIPPED 8010.000 LB				NO. OF PIECES 000009				GOVT. CONTRACT NO.			
										Steve Good - Laboratory Manager	

**CERTIFICATION**  
"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."  
Constellium Rolled Products Ravenswood, LLC  
859 Century Road  
P.O. BOX 68  
RAVENSWOOD, WV 26164 USA

**Tensile - Room Temperature (SI)**

Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	542	553	478	483	13.0	13.5	

**Chemistry (Actual)**

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

**Lot: 9387288**

**Tensile - Room Temperature (US)**

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	80.7	81.1	71.2	71.3	12.5	13.5	



**Constellium**




**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110550653		4075		INCLUSION		Serial:20170703-0110550653		Pg 3of4	
CUSTOMER PURCHASE ORDER NO. & ITEM 419158						Constellium ORDER NO. 202980			<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA    Steve Good - Laboratory Manager		
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm						
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114			B/L NUMBER 83332		DATE SHIPPED 07/05/2017						
WT. SHIPPED 8010.000 LB		NO. OF PIECES 000009		GOVT. CONTRACT NO.							

**Tensile - Room Temperature (SI)**

		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	556	559	491	492	12.5	13.5	

**Chemistry (Actual)**

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

**Lot: 9387289**

**Tensile - Room Temperature (US)**

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	80.3	81.1	70.0	71.2	13.5	14.0	



**Constellium**



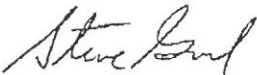
**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE		110550653		4075		INCLUSION		Serial:20170703-0110550653		Pg 4of4	
CUSTOMER PURCHASE ORDER NO. & ITEM 419158						Constellium ORDER NO. 202980			<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA    Steve Good - Laboratory Manager		
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ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114			B/L NUMBER 83332		DATE SHIPPED 07/05/2017						
WT. SHIPPED 8010.000 LB		NO. OF PIECES 000009		GOVT. CONTRACT NO.							

**Tensile - Room Temperature (SI)**

		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report	
Direction	Tests	Min	Max	Min	Max	Min	Max		
LT	02	554	559	483	491	13.5	14.0		

**Chemistry (Actual)**

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

QUALITY TEXTS:  
AMC CA-15403A R 7

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT

WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557

DUNS Number: 090570149; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

"END OF CERTIFICATION"

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075+651.250x7.000

PO / BATCH NO.: 038327/5017118

DATE: DEC 05 2017

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: 1.25

QUANTITY RECEIVED: 50"

THICKNESS RECEIVED: 1.25

QUANTITY INSPECTED: 50"

SHEET SIZE ORDERED: AAA 1.25x7.000

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: 1.25x7.000

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	QQ-A-250/12
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	Heat # 9387290
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.  
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>ml</u>	<u>9</u>	SIGNED OFF BY: _____	
DATE: <u>DEC 05 2017</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**SPECIFICATION CONTROL DRAWING**

**B** PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12  
OR AMS 4045  
OR ASTM B209

OR

**B** PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

**B** SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

**B** PART NUMBER: M7075T6S | TTT | X | W | WWW |  
| THK | | WIDTH |

**B** WHERE "TTT" = THICKNESS (IN INCHES)  
AND "W.WWWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)  
EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

**B** PREFERRED SIZE: . TTT BY 4FT BY 10FT FOR SHEET

**RELEASED**  
2017 JUN 19  
ECN 17-574

APPROVED

B	ADD: REF TO "PLATE", "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	D9		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
TITLE 7075-T6 SHEET/PLATE SPEC			
SCALE NTS			
SHEET 1 OF 1			
COPYRIGHT © 2017 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND CONFIDENTIAL, BUT IS SUPPLIED IN THE FULLNESS OF DISCRETION ON THE PART OF DART AEROSPACE LTD. IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON OR ENTITY WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.			



Dart Hawkesbury  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO038327

**Supplier:** MEC002-VU  
Metaux Castle  
P.O. Box 4090 Stn A  
Toronto  
ON  
M5W OE9 Canada

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**PO No:** PO038327

**PO Date:** 11/10/17

**Due Date:** 11/28/17

**Purchase Order**

**Revision:**

**Revision Date:**

**Ship-To Contact:** Lavoie, Chantal  
Phone: clavoie@dartaero.com

**Via:** Ground

**Pymt Terms:** Net 30

**Freight Terms:**

**Special Comments:**

NOV 10 2017

## Items

Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T6S0.375X6.000	-	7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft		Firmed	11/28/17	12 ft	0 ft	12 ft	\$25.68/ft	\$308.16
2	M7075T6S0.375X8.000	-	7075-T6S Sheet .375" Thick Plate X 8" Wide : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft		Firmed	11/28/17	12 ft	0 ft	12 ft	\$30.75/ft	\$369.00
3	M7075T6S1.250X7.000	-	7075-T6 Sheet 1.25" X 7.000" Order Pre		Firmed	11/28/17	50 ft	0 ft	50 ft	\$44.65/ft	\$2,232.50



Dart Hawkesbury  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## PO038327

Items											
Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
			Cut To 50.00" : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft								
Line Item Note note: cut to size 12 pcs @ 50" long											
4	M7075T6S1.250X2.000 -		7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft		Firmed	11/28/17	12 ft	0 ft	12 ft	\$20.12/ft	\$241.44
5	M7075T6S1.500X1.500 -		7075-T6S Sheet 1.5" Thick Plate X 1.5" Wide : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft		Firmed	11/28/17	24 ft	0 ft	24 ft	\$21.06/ft	\$505.44
6	M7075T6S1.750X2.250 -		7075-T6 Sheet 1.750" X 2.250" :		Firmed	11/28/17	24 ft	0 ft	24 ft	\$28.62/ft	\$686.88



Dart Hawkesbury  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

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# PURCHASE ORDER PO038327

Items											
Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
7	M7075T6S.050	-	MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft		Firmed	11/28/17	48 sf	0 sf	48 sf	\$7.791666/sf	\$374.00
8	M17-4-B1.500X02.250	✓	MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive sf		Firmed	11/28/17	12 ft	0 ft	12 ft	\$66.00/ft	\$792.00
			MATERIAL: 17-4 PH SS BAR AS PER AMS 5604/5643 GRAIN MUST BE ALONG LENGHT OF BAR MIN. YIELD TENSILE STRENGTH = 100 KSI MIN. ULTIMATE TENSILE STRENGTH = 150 KSI receive ft								
Line Item Note note 1.5" x 2.50" acceptable											
9	M7075T6S7.000X2.000	-	7075-T6S Sheet 7" Thick Plate X 2" Wide		Firmed	11/28/17	24 ft	0 ft	24 ft	\$78.52/ft	\$1,884.48





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K6A 1K7  
Canada

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# PURCHASE ORDER

## PO038327

Items											
Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
			MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft								
										Grand Total: \$7,393.90	

### Order Notes

#### Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 11/10/17 9:44 AM dart.lavoie.chantal



Castle Metals®

A. M. Castle & Co.


PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:3449864

<b>Ship From:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
<b>Date Shipped</b> 30-NOV-17	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid	<b>Carrier</b> MANITOULIN	<b>BOL No</b> 3449864-2

Shipment Details

<b>Order No</b> 4952710	<b>Line No</b> 5	<b>Item No</b> 771698.MO	<b>Description</b> 0.0500.SH.7075.T6.ALUMINUM BARE 48.0000.144.0000 - PROTECTIVE VINYL COATING SPECIFICATIONS: AMS-QQ-A-250/12
<b>Purchase Order No</b> 38327	<b>Part Number</b>	<b>Ordered Qty</b> 1.00 PCS	<b>Invoice Qty</b> 1.00 PCS
<b>Details</b> ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS			
<b>Delivery No.</b> 121429564	<b>Mill/Source</b> KAISER ALUMINUM	<b>Heat Number</b>  2 3 3 4 2 8 8 2	<b>Mech Id</b> 1
		<b>Width (IN)</b>	<b>Length (IN)</b>
			<b>Shipped Qty(LBS)</b> 34.6021

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.



Reviewed by Authorized Castle Metals Representative

Date: NOV 30 2017

Name:

Date Printed: 30-NOV-2017 03:23:42 PM

SHIP TO:  
A M CASTLE & CO  
14001 ORANGE AVE  
P.O. BOX 1402  
PARAMOUNT, CA 90723

**KAISER  
ALUMINUM**

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4475080

SOLD TO:  
AM CASTLE & CO- SOLD TO  
1420 KENSINGTON RD  
SUITE 220  
OAK BROOK, IL 60523

CUSTOMER PO NUMBER: 429692-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 770200	SHIP RUN/LOAD: 104018/16	GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1239853-1	SHIP DATE: 22-AUG-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T6	PRODUCT DESCRIPTION: HT Coil
WEIGHT SHIPPED: 7923 LB	QUANTITY: 2 PCS EST.	TRUCK B/L #: 2068590	GAUGE: 0.0500 IN ( 1.2700 MM)	DIAMETER/WIDTH: 48.000 IN (1219.2 MM)	LENGTH: COIL

MHU 2141882: LOT 233428B2: 1 pieces;

MHU 2141886: LOT 233428B2: 1 pieces;

### Certified Specifications

AMS 4045/RevL  
CMMP 019/RevD

AMS-QQ-A-250/12/RevA  
CMMP 025/RevV

ASTM B 209/Rev14

Test Code: 1512

Lot: 233428B2 Cast 504

Drop 04

### Test Results

Ingot 5

Melted in USA

(ASTM B8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T6	LT / 2 (Min:Max)	84.0 : 84.4 (579 : 582)	74.8 : 74.9 (516 : 516)	13.8 : 13.9

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.08	0.19	1.5	0.05	2.5	0.20	5.7	0.03	0.01	0.01	TOT 0.03

### ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

### ORDER COMMENTS

AMC A97075-152 R 5



# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4475080

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- \* has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- \* All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- \* was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- \* has been thermally processed in compliance with AMS 2772, where applicable.
- \* is mercury free, within the limits of detection of ASTM E1215 (< 1 ppm).
- \* is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- \* is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- \* is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- \* is free of weld repair.
- \* meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.



JAMES HEMENWAY, TECHNICAL PROCESS MANAGER